REMARKS

The Examiner has rejected Claims 1-7 and 21 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 5,843,454 ("the '454 Patent") and Claim 1 of U.S. Patent No. 5,518,723 ("the '723 Patent").

Claim 15 stands previously canceled. Claims 8-14 and 16-20 stand previously withdrawn Claims 1-14 and 16-21 are currently pending. The following remarks are considered by applicant to overcome each of the Examiner's outstanding rejections to current Claims 1-7 and 21. An early Notice of Allowance is therefore requested.

I. SUMMARY OF RELEVANT LAW

The determination of obviousness rests on whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. In determining obviousness, four factors should be weighed: (1) the scope and content of the prior art, (2) the differences between the art and the claims at issue, (3) the level of ordinary skill in the art, and (4) whatever objective evidence may be present. Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. The Examiner carries the burden under 35 U.S.C. § 103 to establish a prima facie case of obviousness and must show that the references relied on teach or suggest all of the limitations of the claims.

II. REJECTION OF CLAIMS 1-2, 15, AND 21 ON THE GROUND OF NONSTATUTORY OBVIOUSNESS-TYPE DOUBLE PATENTING BASED ON THE '454 PATENT AND THE '723 PATENT

On page 3 of the current Office Action, the Examiner rejects Claims 1-2, 15, and 21 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claim 1 of the '454 Patent and Claim 1 of the '723 Patent. These rejections are respectfully traversed and believed overcome in view of the following discussion.

Independent Claim 1 states:

"An immunogenic complex comprising:

> "gp120 covalently bonded to a **fragment of CD4**;
>
> "wherein a fragment of CD4 includes either the first domain of CD4, the second domain of CD4, both the first and second domains of CD4, or a combination of the first or second domain of CD4 and the third or fourth domain of CD4." (emphasis added).

Examiner asserts that the above Claim 1 is not patentably distinct from Claim 1 of the '454 Patent and Claim 1 of the '723 Patent.

Claim 1 of the '454 Patent states:

> "1. A composition comprising: an immunogenic complex comprising gp120 covalently bonded to **CD4**; and an adjuvant composed of aluminum phosphate gel." (emphasis added).

Claim 1 of the '723 Patent states:

> "1. An immunogenic complex comprising gp120 covalently bonded to **CD4** such that cryptic epitopes are revealed." (emphasis added).

In the Office Action dated November 20, 2006 (to which Examiner refers in the current Office Action by maintaining the above rejection "for the reasons or record"), Examiner assert that the gp120-CD4 complex of both Claim 1 of the '454 Patent and Claim 1 of the '723 Patent meets the structure and function limitations of an immunogenic complex comprising gp120 covalently bonded to a **fragment of CD4**. As such, Examiner asserts that the subject matter of the three sets of claims are not patentably distinct from each other.

However, as clearly seen above, Claim 1 of the '454 Patent and Claim 1 of the '723 Patent are both drawn to gp120 covalently bonded to the ***entire*** **CD4 molecule**. However, Claim 1 of the current Application is drawn to gp120 covalently bonded to a ***fragment*** **of CD4 molecule**. A complex of gp120 covalently bonded to a **fragment** of CD4 is going to have a completely different structure than a complex of gp120 covalently bonded to the **entire** CD4 molecule. Only the current Application provides any motivation or reasonable expectation of success for modifying the teachings of the '454 Patent and the '723 Patent so as to arrive at a complex of gp120 covalently bonded to a **fragment** of CD4.

In addition, since Claim 1 specifically covers an immunogenic complex comprising gp120 covalently bonded to a ***fragment*** **of CD4**, it does **not** cover the

complexes of Claim 1 of the '454 Patent and Claim 1 of the '723 Patent, since a **fragment** of a specific molecule is, by definition, **not** the **entire** molecule. As such, Applicants must respectfully maintain that Claim 1 of the current Application **is patentably distinct** from Claim 1 of the '454 Patent and Claim 1 of the '723 Patent.

Accordingly, Applicant respectfully asserts that Examiner has failed to establish a *prima facie* case of double patenting of independent Claim 1, and corresponding Claims 2-7 and 21 because they are each ultimately dependent from Claim 1. Therefore, Applicant respectfully requests that Examiner remove the rejection of Claims 1-7 and 21 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 5,843,454 and Claim 1 of U.S. Patent No. 5,518,723.

Based upon the above remarks, Applicant respectfully requests reconsideration of this application and its early allowance. Should the Examiner feel that a telephone conference with Applicant's attorney would expedite the prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,

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